

**Amendment and Response**

Page 2

Serial No. 09/978,343

Filed: October 15, 2001

Title: CANDIDA ALBICANS GENE, INTEGRIN-LIKE PROTEIN, ANTIBODIES, AND METHODS OF USE

- B1
29. [Amended] The antibody of claim 28 wherein the antibody is monoclonal or polyclonal.
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31. [Amended] The antibody of claim 28 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.
32. [Amended] An isolated and purified antibody to a polypeptide, wherein the polypeptide consists of SEQ ID NO:3.
33. [Amended] The antibody of claim 32 wherein the antibody is monoclonal or polyclonal.
34. [Amended] An isolated and purified antibody to a polypeptide, wherein the polypeptide has the amino acid sequence of SEQ ID NO:3, and wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.
35. [Amended] The antibody of claim 34 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.
- B2
36. [Amended] An isolated and purified antibody to a peptide consisting of an amino acid sequence selected from the group consisting of:
- (a) YLS PTN NNN SKN VSD MDL HLQ NL (SEQ ID NO:4);
  - (b) DWK LED SND GDR EDN DDI SRF EK (SEQ ID NO:5);
  - (c) SKS ANT VRG DDD GLA SA (SEQ ID NO:6);
  - (d) DHL DSF DRS YNH TEQ SI (SEQ ID NO:7); and
  - (e) WIQ NLQ EII YRN RFR RQ (SEQ ID NO:8).
37. [Amended] The antibody of claim 36 wherein the antibody is monoclonal or polyclonal.
38. [Amended] An isolated and purified antibody to a peptide having an amino acid sequence selected from the group consisting of:

**Amendment and Response**

Page 3

Serial No. 09/978,343

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- (a) YLS PTN NNN SKN VSD MDL HLQ NL (SEQ ID NO:4);
- (b) DWK LED SND GDR EDN DDI SRF EK (SEQ ID NO:5);
- (c) SKS ANT VRG DDD GLA SA (SEQ ID NO:6);
- (d) DHL DSF DRS YNH TEQ SI (SEQ ID NO:7); and
- (e) WIQ NLQ EII YRN RFR RQ (SEQ ID NO:8), wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.

39. [Amended] The antibody of claim 38 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.

40. [Amended] An isolated and purified antibody to a polypeptide with integrin-like motifs encoded by a polynucleotide that hybridizes to DNA complementary to DNA having SEQ ID NO:1 under stringency conditions of hybridization in buffer containing 5x SSC, 5x Denhardt's, 0.5% SDS, 1 mg salmon sperm/25 mls of hybridization solution incubated at 65°C overnight, followed by high stringency washing with 0.2x SSC/0.1% SDS at 65°C, wherein the polypeptide with integrin-like motifs contains an I domain, two EF-hand divalent cation binding sites, a sequence sufficient to form a transmembrane domain, an internal RGD tripeptide, and a carboxy-terminal sequence having a single tyrosine residue, and wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.

41. [Amended] The antibody of claim 40 wherein the polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, and SEQ ID NO:8.

42. [Amended] The antibody of claim 40 wherein the antibody is monoclonal or polyclonal.

44. [Amended] The antibody of claim 40 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.

B2  
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*Amendment and Response*

Page 4

Serial No. 09/978,343

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45. [Amended] An isolated and purified antibody to a *Candida albicans* polypeptide encoded by a polynucleotide having SEQ ID NO:1, wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.
46. [Amended] The antibody of claim 28, wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.
- B<sup>2</sup>
47. [Amended] The antibody of claim 34 wherein the antibody blocks *Candida albicans* epithelial cell adhesion by at least about 50 percent.
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48. [Deleted]
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49. [New] The antibody of claim 32 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.
50. [New] The antibody of claim 32 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.
- B<sup>3</sup>
51. [New] The antibody of claim 32 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.
52. [New] The antibody of claim 36 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.
53. [New] The antibody of claim 36 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.

**Amendment and Response**

Page 5

Serial No. 09/978,343

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54. [New] The antibody of claim 36 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.
55. [New] The antibody of claim 38 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.
56. [New] The antibody of claim 45 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.
57. [New] The antibody of claim 45 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.
58. [New] The antibody of claim 34 wherein the antibody is monoclonal or polyclonal.
59. [New] The antibody of claim 38 wherein the antibody is monoclonal or polyclonal.
60. [New] The antibody of claim 45 wherein the antibody is monoclonal or polyclonal.
61. [New] The antibody of claim 32 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.
62. [New] The antibody of claim 34 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.

B3  
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**Amendment and Response**

Page 6

Serial No. 09/978,343

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- B<sup>3</sup>
63. [New] The antibody of claim 36 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.
64. [New] The antibody of claim 38 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.
65. [New] The antibody of claim 40 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.
66. [New] The antibody of claim 45 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.
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